October 2018

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HEADLINES

Recruiting international students: How to stay competitive

EDITORIAL

I am pleased to present the second issue of our ParisTech newsletter. When I was elected President on September 12th, I already had strong faith in our network because of the many common values our schools share.

Whether the issue is training (curriculum based on these same principles, with strong interaction with companies and a heavy emphasis on research, recruiting of our students at similar levels, whether in France or abroad), the promotion of diversity, pursuit of doctoral studies, organic-education actions for teaching staff… international projection (coordinated recruiting, partnership agreements with higher education institutions of excellence or funding agencies…), or corporate relations (chairs, joint institutes…), ParisTech has been able to rely on these values to implement many projects of interest to our institutions, in total congruence with their respective site policies.

This issue, dedicated specifically to international strategy, shows once again that for 20 years, the actions we are conducting together have allowed us to be a forerunning partner of major universities and companies around the world.

Joint interview with JEAN-FRANÇOIS NAVINER, Director of International Relations at Télécom ParisTech and ParisTech Coordinator for Latin America and SYLVAIN FERRARI, Director of ParisTech China

What is ParisTech’s international strategy?

JFN: Each school has its own international strategy. But they work together within ParisTech to recruit international students, to develop double degrees and foster their students’ outgoing mobility, to develop partnerships in Europe and, finally, to project themselves on the international stage with institutional cooperation agreements.

What is ParisTech’s main recruiting method?

JFN: ParisTech schools have been pooling the recruiting of international students in their engineering courses for over 20 years (“coordinated recruiting”), in association with leading academic partners in the target countries—China, Brazil, Colombia, Russia. Students admitted to this program after their bachelor’s degree enter France’s engineering cycle in its second year. They obtain their diploma from the ParisTech host school along with, if they follow a double-degree course, the master’s or engineer’s degree from their home university. So we recruit some 40 students a year in Brazil, some fifteen in Colombia, one hundred Chinese in China, and a dozen in Russia.

SF: In 2000, ParisTech set up a partnership in China with 9 of the best Chinese universities, and three more joined them in 2011/2012. Since 2000, over 1,300 Chinese students have been recruited by ParisTech schools.

How does coordinated recruiting work? What is the level of selection?

JFN: The home universities present the candidates to the fairs, i.e., one year before the students join the schools. The selection is based on a written exam in basic and engineering sciences. This is followed by a
100 students are recruited to the So in China’s case, about of the number of international What are ParisTech’s JFN : I would say that coordinated Engineering schools’ programs successfully. In the context of some of our double degrees that have been working successfully for several years now, candidates are exempt from the written test. In all co-education schools, scientific excellence remains the key criterion.

What other methods of international recruiting are there? JFN : We give preference to qualification-based admissions in engineering schools to and to double-degree or joint programs (engineering, master’s, specialisation, Master in MENA). The agreements we’ve reached with our partners are often built on privileged relationships maintained by one or more leading schools. ParisTech brings an undeniable added value to such partnerships through the congruence between our schools, which cover all fields of engineering.

SF : The recruiting of PhD students is also a strong strategic axis for ParisTech. In China, the PhD program implemented with the China Scholarship Council allows us to recruit 30 to 40 PhD students a year. We’ve received 300 applications over the last two years! It’s always a challenge for us; finally, ParisTech is involved in four Franco-Chinese Institutes (FCI):

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The Franco-Chinese Institutes in which ParisTech’s schools are involved

<table>
<thead>
<tr>
<th>FCI</th>
<th>Creation Date</th>
<th>Chinese partner</th>
<th>Pilot</th>
<th>ParisTech and other partners</th>
<th>Number of students per class</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sino-European Institute for Clean Renewable energies (ICARE)</td>
<td>2010</td>
<td>Huazhong University of Science and Technology,</td>
<td>Mines ParisTech</td>
<td></td>
<td>90</td>
</tr>
<tr>
<td>Franco-Chinese Nuclear Energy Institute (IPEN)</td>
<td>2010</td>
<td>Sun Yat-sen University</td>
<td>Grenoble INP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sino-European Institute of Technology (SFET)</td>
<td>2012</td>
<td>Shanghai Jiao Tong University</td>
<td>ENSTA ParisTech</td>
<td>Telecom ParisTech, Ecole Polytechnique</td>
<td>80-90</td>
</tr>
<tr>
<td>Beijing Chemistry 2017</td>
<td>Beijing Chemical Technology University</td>
<td>Chime ParisTech</td>
<td>Schools of the Gay.Lussac Federation</td>
<td></td>
<td>80</td>
</tr>
</tbody>
</table>

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How many students does ParisTech recruit each year for its schools? JFN : We are working with some of our partners in the network ATHENS on European projects and are also looking into opportunities in Africa. Finally, we are trying to seek to increase the support received from our companies within our tasks.

SF : Beyond recruiting through the engineering cycle, we work with our partner universities to develop scientific relations, particularly through the supervision of doctoral students, and to strengthen projects carried out in partnership with French and foreign companies. Important work is also being done to identify, animate and enhance the network of ParisTech alumni abroad and highlight the success of our international alumni.

Coordinated recruiting: The fully-reviewed scientific test 2018 saw the complete overhaul of the test applied to select candidates for admission into our schools. This is a multiple-choice test consisting of 87 questions, presented in two parts: mathematics and the subject. It was developed by 13 teachers-researchers from the schools and tested by three PhD students.

5. What especially do you like about this position? What are the challenges? I, first of all, very much enjoy coming back to the home of higher education and research. I get closer to the operational level, even if the professors remain in the hands of the schools and the foundation’s participation is more one of strategy management. It is important that ParisTech’s added value be shown, that the Commissions’ work – for example, on civic engagement – be documented, that it be visible at all levels – administrative and academic staff, students, alumni – be strengthened, and also that we show that ParisTech does not compete with the COMUE but, on the contrary, that it can give them an extra touch of soul. The ParisTech network is an asset for all of us. I invite all those who are interested to join us on Twitter and LinkedIn.

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FLORENCE LELAIT ParisTech General Delegate since June 2018

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The PORTRAIT

1. What are the missions of a general delegate? Is this a newly-created position or an established one in ParisTech?

Emile Rorem held this position up till last December. Like him, I must say that the administrative and financial management of the foundation and lead the team of directors. Working full-time for ParisTech, I must also monitor projects that were underway in 2016, propose a strategy for ParisTech, and implement it.

2. How do you work: means/teams/ coordination of actions with schools…?

This is primarily networking. I work with the three directors who make up the bureau, the founding committee, the delegates – each of whom monitors the Commission relevant to their competence (Communication, Diversity, International) – and the ParisTech Foundation in matters of corporate relations. The schools, first and foremost, lead the process; the Foundation comes in to provide support. So I’m currently working on meeting the various players.

3. What were you doing before you became ParisTech’s General Delegate?

For eight years, I worked in teaching and research at the University. I defended my thesis in German civilization in 2002. Then, after a Master of European Governance and Administration (MENA), I spent eight years at the Ministry of Research, five of which in European and in-

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The PARISTECH LIVE

COMMUNICATION

Look for the ParisTech community on social networks and join our 6,000 followers on Twitter and 1,000 subscribers on LinkedIn! Find out more about our new communication media. The following may be downloaded on our website: a presentation booklet, available in 4 languages (French, English, Spanish, Portuguese) with key metrics on the network, and a video clip on YouTube (accessible from the site’s homepage, www.paristech.fr). And of course, find all the latest on ParisTech on our website or at the StudyWithUs portal, intended specifically for international students.

TEACHING

In July 2018, CentraleSupélec joined ParisTech’s RACINE, the innovative education support network, which trains and coaches teachers-researchers. CentraleSupélec will participate in workshop animation and in teacher-researcher training. A dozen workshops are being prepared (e.g. the integration of flipped classrooms in teaching). This helps to enhance and promote the involvement of teachers-researchers in teaching and to bolster the quality of learning. The 2018/2019 catalogue of workshops – including two new workshops (Introducing games in teaching and Student motivation) is available at https://www.paristech.fr/News/.

DIVERSITY

ParisTech took stock of gender equality (US) while. Chime ParisTech and AgroParisTech, respectively, boast 50% and 56% of females students, other schools have a decided lead, with 30% of female students at the ENSTA ParisTech, partners on two European projects, and the ParisTech schools would also like to implement themselves in Africa, which raises the issue of the Bachelor’s degree and of teaching in English. Student recruiting in China, Brazil, Colombia and Russia, in particular, must be developed, and the three school-driven Franco-Chinese Institutes – SPEIT, ICARE, BUCT-Paris Central Engineering School – must be supported. The RACING network needs to develop its engineering specialization in the courses it offers. Bonds with the Institut Villebon-Georges Charpak, created by ParisTech, must be strengthen ned, and actions fostering social diversity must be bolstered. Finally, there are five Chairs that the network of ParisTech Foundation: two (eco-design, urban mining) must be renewed this year; new Chairs must be created.

30-40% at the ESPCI Paris, 20-25% at Telecom ParisTech, and 20-30% at Mines ParisTech. The ENSTA, Telecom and ESIEE have committed to a proactive policy (visibility of students’ courses, raising awareness in high schools, dedicated courses). Mines ParisTech is participating in the MELIA project regarding the gender pay gap upon graduation, several schools have set up coaching courses (salary negotiation), which are also open to male students.

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In the current context of natural-resource exhaustion, urban mining – rich in plastic materials and rare metals – is essential to the development of an environmentally-friendly circular economy. In this context, in 2014, the Eco-systems eco-organization, with the ParisTech Foundation’s support, established a Research and Teaching Chair. This Chair, called “Urban Mining”, is managed by Chime ParisTech, Arts et Métiers ParisTech and Mines ParisTech. On 05 and 06 June 2018, Eco-systems held a conference on the material which the results obtained under the Chair were presented to the players in the recycling sector. Copyright © Eco-systems

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Elisabeth Crepin, recently elected President of the CTA, represented ParisTech during French Engineering Delegation. I was therefore delighted to have been elected Chair of the delegation and was held from 17 to 21 September. The Bocage Student Fair was a success – nearly 20,000 students welcomed at the ParisTech stand. She then proceeded to Cartagena to inaugurate the International Conference on Engineering Education, dedicated to “Management, Quality and Development in Engineering Faculties”, along with Gauthier Mignot, Ambassador of France to Colombia, and Licurgo Moncada, President of the ACOFI, the Colombian Association Engineering Faculties.